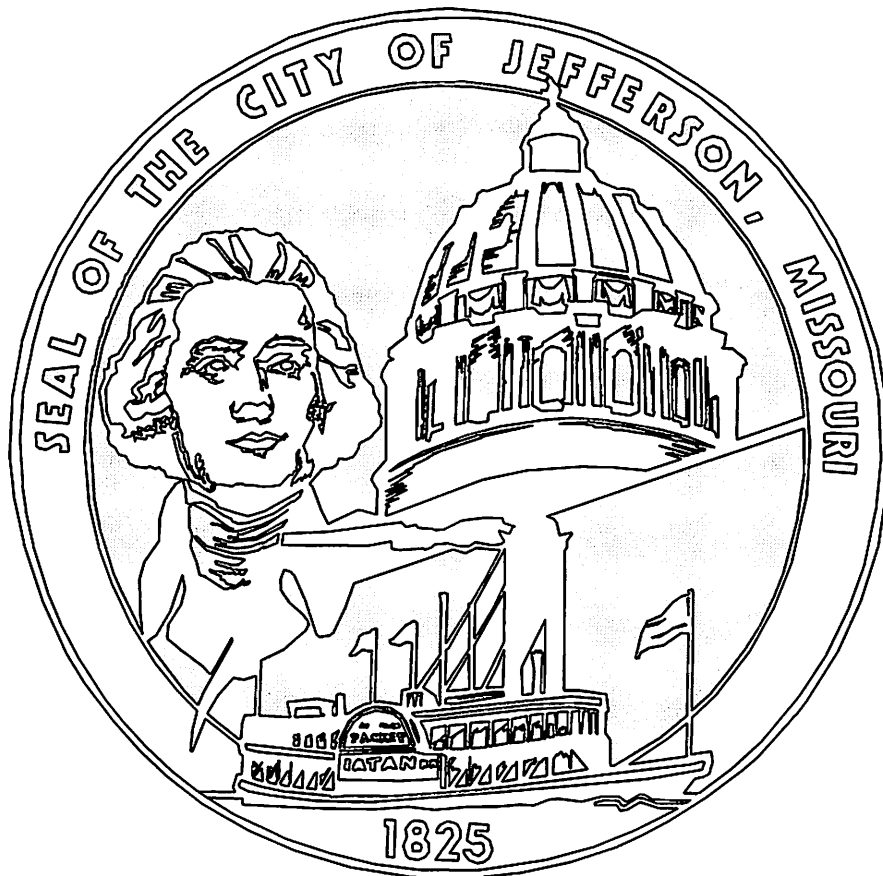




CITY OF JEFFERSON STANDARD DRAWINGS

REVISED : 1/2013
7TH EDITION



FOR FREE DOWNLOAD, GO TO CITY OF JEFFERSON WEB SITE:
<http://www.jeffcitymo.org/publicworks/engineering.html>

INDEX OF SHEETS

DIVISION I MISCELLANEOUS

DESCRIPTION:	SECTION NUMBER
<u>MANHOLE LIDS</u>	1.00
<u>STANDARD CITY OF JEFFERSON MANHOLE FRAMES & LIDS ..</u>	1.01
<u>CONCRETE STAIR/STEPS</u>	2.00
<u>CONCRETE STEP DETAILS</u>	2.01
<u>HANDRAIL LAYOUT REQUIREMENTS (NOTES)</u>	2.02
<u>HANDRAIL LAYOUTS</u>	2.03
<u>PEDESTRAIN/BICYCLE GUARD RAILING</u>	2.04
<u>PIPE BOLLARD</u>	3.00
<u>PIPE BOLLARD DETAIL</u>	3.01
<u>STREET LIGHTS</u>	4.00
<u>STREET LIGHT TRENCHING DETAILS</u>	4.01

* Denotes Modification/Addition for year 2013
City of Jefferson Standards

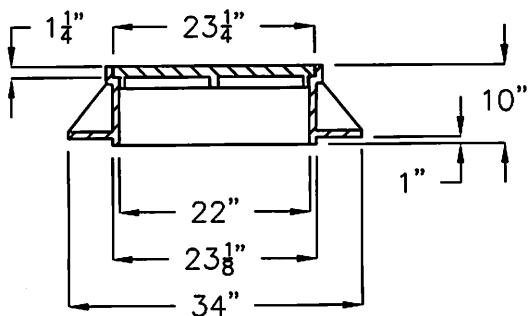
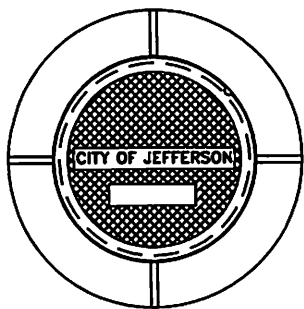
FOR FREE DOWNLOAD, GO TO CITY OF JEFFERSON WEB SITE:
<http://www.jeffcitymo.org/publicworks/engineering.html>

For comments or corrections please E-Mail at: jcengineering@jeffcitymo.org



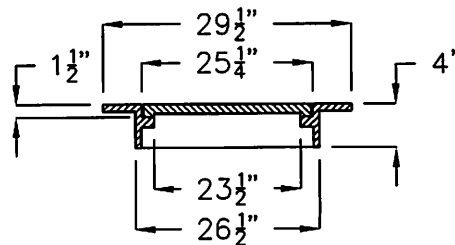
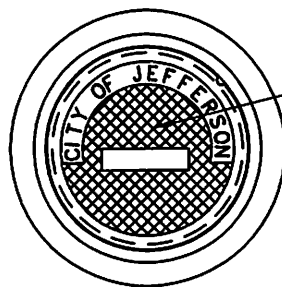
320 E. McCarty Street
Jefferson City, Missouri, 65101
Ph:(573)634-6410
Fax:(573)634-6562

CITY OF JEFFERSON
STANDARD DRAWINGS
REVISED EDITION: 1/2013



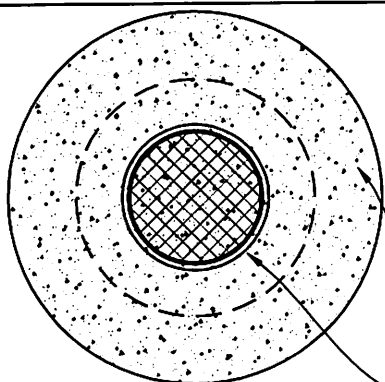
STANDARD MANHOLE FRAME

NOTES:
STANDARD MANHOLE FRAME AND
SOLID LID SHALL BE
NEENAH R-1736 (OR EQUAL),
WITH "CITY OF JEFFERSON"
CASTED ON THE LID.
TOTAL WEIGHT: FRAME AND
SOLID LID = 460 POUNDS.
GRATED LID SHALL BE
NEENAH R-2421-A



ALTERNATE MANHOLE FRAME

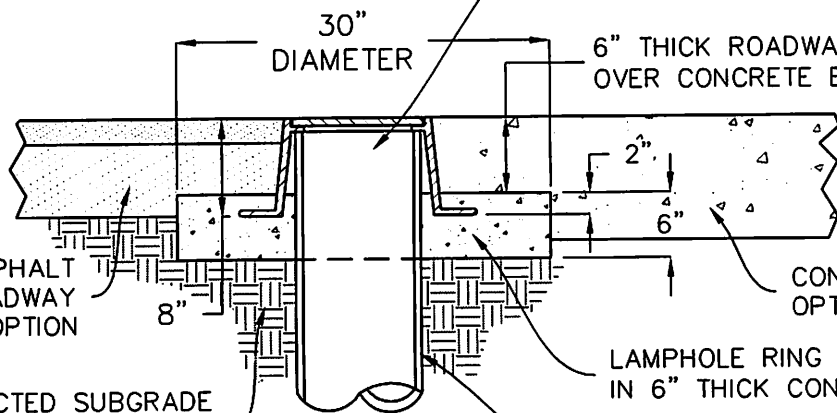
NOTES:
ALTERNATE MANHOLE FRAME AND
SOLID LID SHALL BE
NEENAH R-5900-F (OR EQUAL),
WITH "CITY OF JEFFERSON"
CASTED ON THE LID.
TOTAL WEIGHT: FRAME AND
SOLID LID = 205 POUNDS.
GRATED LID SHALL BE
NEENAH R-5901-F



PLAN VIEW

4000 psi CONCRETE ENCASEMENT
AROUND LAMPHOLE RING

LAMPHOLE RING AND SOLID COVER
SHALL BE DEETER: 1828, OR
CLAY AND BAILY: 2238, OR APPROVED
EQUAL.



SECTION VIEW

6" THICK ROADWAY SURFACE COVER
OVER CONCRETE ENCASED LAMPHOLE RING

LAMPHOLE RING SHALL BE ENCASED
IN 6" THICK CONCRETE X 30" DIAMETER

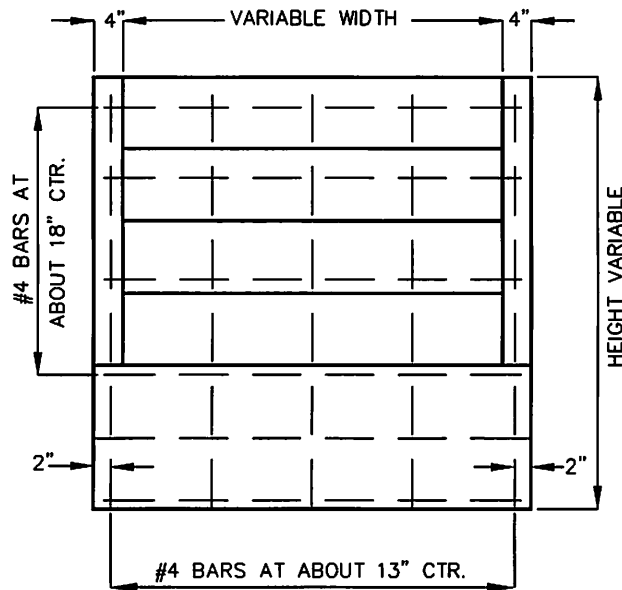
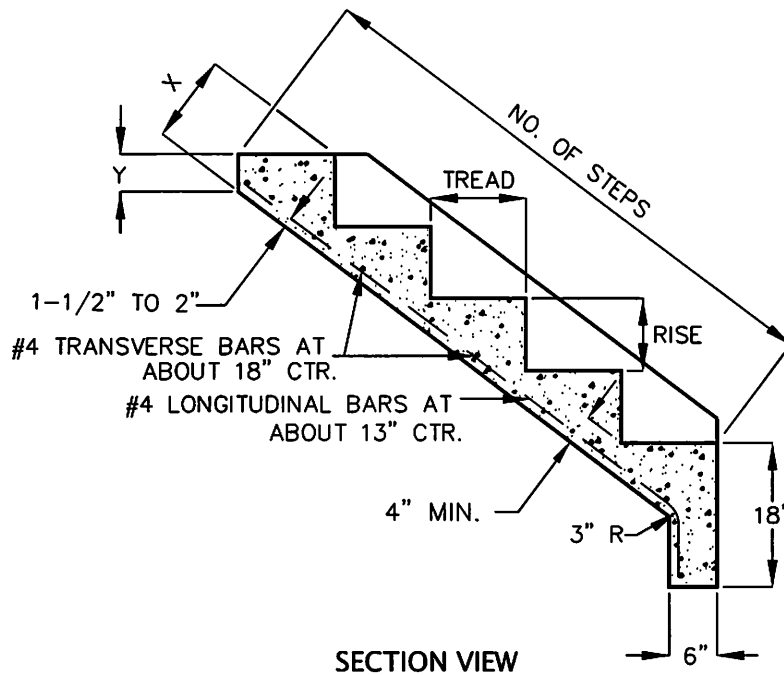
VERTICAL LAMPHOLE PIPE

LAMPHOLE INSTALLATION DETAIL

REVISION AND DESCRIPTION		CITY OF JEFFERSON MANHOLE FRAME AND LID		STANDARD DETAILS	
NO:	DATE:	CHECKED BY:	DRAWN BY:	DATE:	
1	1/2010				
ADDED LAMPHOLE DETAIL					



SHEET NUMBER
1 OF 1
SECTION
1.01



CONCRETE STEPS
LOOKING FROM
SIDEWALK

NOTES
FOR RESIDENTIAL APPLICATIONS

1. Minimum riser shall be 4", and maximum shall be no more than 7 3/4".
2. Minimum tread shall be 10 3/4".

FOR COMMERCIAL APPLICATIONS

1. Minimum riser shall be 4", and maximum shall be no more than 7".
 2. Minimum tread shall be 11".
- Positive drainage shall be achieved on all treads, not to exceed 1/8" per foot.

<div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div>	
--	--

NOTES:

1. Handrails are required on both sides of stairs and or ramps.
2. The top of the gripping surfaces of handrails shall be no less than 34" and no more than 38" vertically above the walking surface, stair nosings, and ramp surfaces. Handrails shall be at a consistent height above the walking surface or stair nosings.
3. At the top of a stair flight, handrail shall extend horizontally above the landing for a minimum of 12" beginning directly above the first riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent stair flight.
4. At the bottom of a stair flight, handrail shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the hand rail of an adjacent stair flight.
5. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of the handrail gripping surfaces shall not be obstructed for more than 20% of their length.
6. Handrail gripping surfaces with a circular cross section shall have an outside diameter of not less than 1 1/4" and not more than 2". Handrail gripping surfaces with a non-circular cross section shall have a perimeter of not less than 4" or more than 6 1/4". The longest cross sectional dimension shall be not exceed 2 1/4".
7. Handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottoms of handrail gripping surfaces shall not be obstructed from more than 20 percent of their length.
8. Refer to U.S. Department of Justice "2010 ADA Standards for Accessible Design" for additional information and or requirements.

MATERIAL / FINISHES / INSTALLATION:

1. The material and finish requirements contained in this section are not meant to prohibit the use of manufactured railings which meet the requirements of ADA.
3. All fabricated railings shall be either 1 1/2" ϕ schedule 40 steel tubing (1.90 OD x .145 wall), or 1 1/2" x 1 1/2" x 11 GA. (.120 wall) steel tubing. Pedestrian/Bicycle Guard Railing may exceed these dimensions.
4. All welds shall be continuous and shall be ground smooth. The railing shall be free of slag, burrs, or other defects.
5. Expansion joints shall be placed in railings after every third post. The joints shall be constructed as shown in the Expansion Detail. Additional expansion joints and or specifically designed mounting bracket/elements may be necessary if the railing is installed on a curve.
6. All posts shall have a 1/4" weep hole immediately above the concrete surface.
7. All fabricated railings shall have a hot dipped galvanized finish or shall be powder coated. If powder coated, the color shall be black unless otherwise approved by the engineer.
8. When installed the posts of all railings shall be plumb.
9. The railings may be bolted to the concrete surface or may be mounted with grout in sockets formed or drilled in the concrete. Refer to the mounting details for additional information.

REVISION AND DESCRIPTION

DATE:

NO:

HANDRAIL LAYOUT
REQUIREMENTS

STANDARD DETAILS

CHECKED BY:

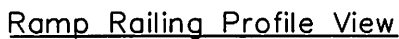
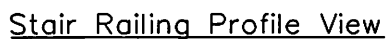
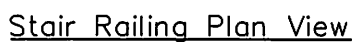
DRAWN BY:

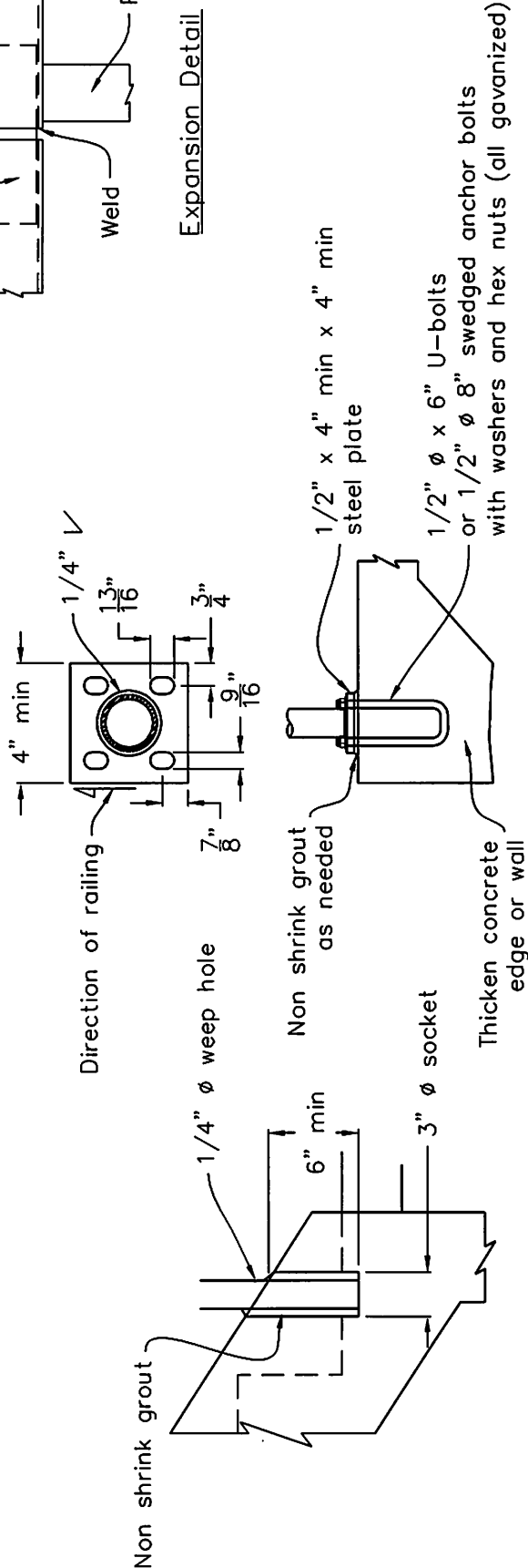
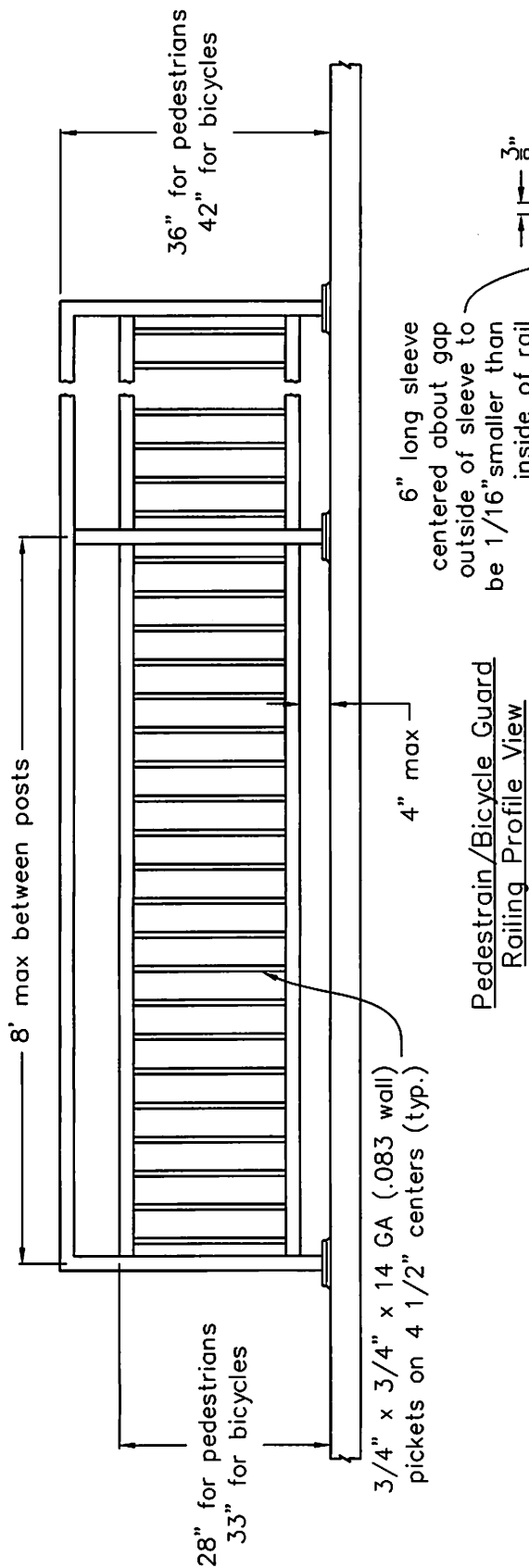
DATE:



SHEET NUMBER

2 OF 4
SECTION
2.02

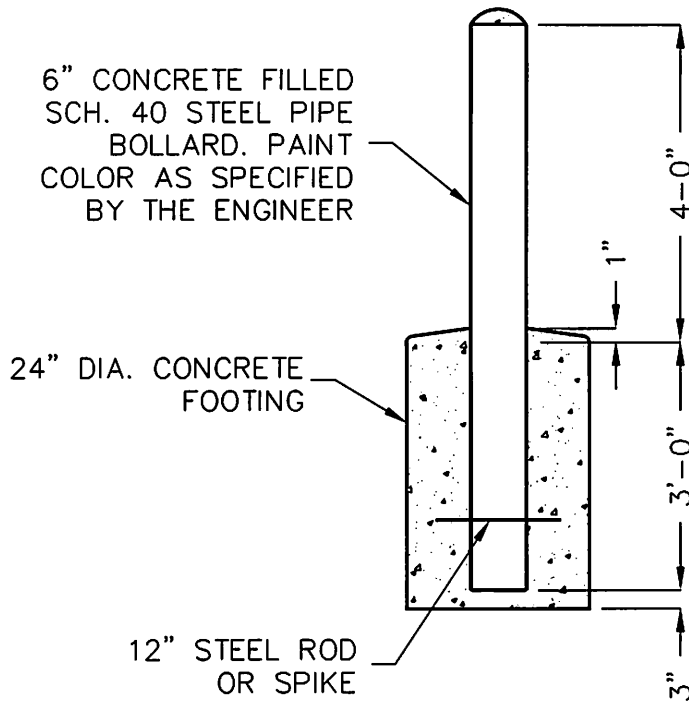




Mounting Detail A

Mounting Detail B

<div><div><div><div><div><div></div></div></div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div><div><div><div></div></div></div></div><div>City of Jefferson</div><div>DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION</div></div></div>	SHEET NUMBER		REVISION AND DESCRIPTION	
	4 OF 4			
	SECTION			
	2.04			
CHECKED BY:	NO:		DATE:	
DRAWN BY:				
DATE:				
Pedestrian/Bicycle Guard Railing Requirements				
STANDARD DETAILS				



PIPE BOLLARD

PIPE BOLLARD DETAIL		NO:	DATE:	REVISION AND DESCRIPTION
<div> <div>CHECKED BY:</div> <div>DRAWN BY:</div> <div>DATE:</div> </div>	<div> <div>STANDARD DETAILS</div> </div>			



TRENCHING DETAILS



* OFFSET SHALL BE ADJUSTED
TO AVOID UTILITIES AND AS
APPROVED BY THE ENGINEER

•• EXCEPT AS NOTED ON THE PLANS

NO:	DATE:	REVISION AND DESCRIPTION
1	12/2006	CHANGED TRENCH TO GRANULAR CHAT BACKFILL

TRENCHING DETAILS	STANDARD DETAILS
-------------------	------------------

CHECKED BY:	
DRAWN BY:	
DATE:	



SHEET NUMBER

1 OF 1
SECTION
4.01